Before the Federal Communications Commission
Washington, D.C. 20554

In the Matter of	:	
	:	MB Docket No. 02-230
Digital Broadcast Copy Protection	:	

Reply Comments of Digital Transmission Licensing Administrator, LLC

Pursuant to the Notice of Proposed Rulemaking dated August 8, 2002 ("the NPRM"), and the Order of January 3, 2003, the Digital Transmission Licensing Administrator, LLC ("DTLA," also known as "5C") hereby submits these Reply Comments.

As is evident from the numerous comments submitted on behalf of industry representatives, as well as consumers and consumer advocates, significant differences of opinion continue to exist among those who would implement and be affected by a proposed "broadcast flag." Most of these differences relate to concerns over policy rather than technology. The 5C companies – Hitachi, Ltd., Intel Corp., Matsushita Electric Industrial Co., Ltd., Sony Corp. and Toshiba Corp. – submit that the best solutions are developed by consensus among marketplace participants. To the extent that such consensus does not yet exist, we urge the Commission to proceed deliberately, with due regard for the serious concerns raised by these diverse interests. Thus, we urge the Commission to continue to seek public comment before proposing for adoption any regulations relating to the Broadcast Flag itself or with respect to sanctioning the uses of technologies that may be used to protect content marked with the Broadcast Flag.

In their respective initial Comments in this proceeding, DTLA and Motion Picture Association of America ("MPAA") companies submitted proposed compliance and robustness requirements[1] ("Joint Requirements") that completed the few technical work items left unfinished by the Broadcast Protection Discussion Group ("BPDG").[2] One additional unfinished proposal related to the criteria by which a technology could qualify as an output or recording technology that implements certain protections signaled by the Broadcast Flag. MPAA and 5C companies submitted with their Comments in this proceeding a suggested framework that addressed at a high level certain elements for those criteria ("Joint Criteria Proposal"). As the criteria are of the most direct concern to the DTLA, these Reply Comments principally focus on this central issue, of how such "Table A" protection technologies may be authorized.

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[1] "Requirements for the Protection of Unencrypted Digital Terrestrial Broadcast Content against Unauthorized Transmission, Joint Proposal from MPAA and 5C Companies," December 6, 2002.

[2] The Comments submitted by the MPAA *et al.* inaccurately summarized the requirements applicable to retransmission of broadcast content by cable and satellite services. *See* MPAA Comments at 18-19. The correct explanation of the technical proposal applicable to such content is set forth in paragraph X.2(d) of the Joint Requirements.

I. Criteria For Authorized Digital Output and Recording Technologies

A. The Criteria Proposed by DTLA and MPAA Companies

The Comments of DTLA and the Joint Criteria Proposal suggested four basic criteria by which the Commission could authorize, upon satisfaction of any one of the criteria, technologies that securely output and/or record content marked with the Broadcast Flag, so as to provide reasonable protection against unauthorized redistribution (including unauthorized retransmission over the Internet) of such content. These criteria are:

1. 3 Major Studios and/or Major Television Broadcast Groups "use or approve" the technology ("use" and "approval" are defined terms in the Joint Proposed Criteria document);

2. 10 Major Device Manufacturers (including hardware and software vendors) have licensed the technology and 2 Major Studios use or approve the technology.

3. The technology is at least as effective at protecting Unscreened Content and Marked Content against unauthorized redistribution (including unauthorized Internet redistribution) as is any one of the technologies then listed on Table A; or,

4. The technology includes output and recording controls that protect against such unauthorized redistribution of audiovisual content, and was expressly named as being permitted to be used for the output or recording of audiovisual content under the license applicable to a technology listed on Table A.

Criteria (1), (2) and (4) reflect market-based considerations, whereby a technology becomes authorized on Table A after marketplace participants have demonstrated the acceptability of the technology and its enforcement-related licensing terms for purposes of protecting audiovisual content against unauthorized redistribution. A technology can become authorized under criterion (3) regardless of marketplace considerations, if its attributes and license terms, with respect to providing protection against unauthorized redistribution of content marked with the Broadcast Flag, provide protection at least as effective as those of any technology already on Table A.

Consistent with its view that marketplace-generated technologies generally provide the best solutions, DTLA believes that any criteria adopted by the Commission should require minimal governmental involvement, oversight or regulation. The regulatory role would primarily be administrative. Specifically, under any of the criteria, technology proponents would submit notifications that set forth those facts which, *prima facie*, would entitle the applicant's technology to become an authorized Table A technology.

With respect to Criteria (1), the envisioned regulatory role would be to perform the administrative act of notifying those entities identified in the notification as having used or approved the technology for the output or recording of audiovisual content. Under Criterion (2), the regulator similarly would notify those implementers who have licensed, or those entities that have used or approved, the technology. A notice invoking criterion (4) would state the facts demonstrating that the license for a technology already on Table A permits the use of such new technology for the output or recording of audiovisual content; the regulator would give notice of the filing to the licensor. Should the named entities (*viz.*, those who have used or approved the technology under criterion (1) or (2), licensed the technology under criterion (2), or included the technology in a license for a technology already on Table A under criterion (4)), during a specified notice period, fail to rebut the facts asserted by the technology proponent, the authorization would become effective. If those entities dispute the asserted facts, then a speedy due process resolution of the dispute would commence, at the end of which the authorization either would become effective with respect to the noticed technology or the notification would be rejected.

As to criterion (3), the regulatory process should not be materially different. A technology proponent invoking criterion (3) would submit a notification of satisfying the criterion, stating the facts in support. If there is a dispute (determined by a requisite number of objections) as to whether the technology specified in the notice qualifies under criterion (3),[3] the dispute resolution process would commence, similar to the process to be employed with respect to criteria (1), (2) and (4).

The criteria recommended by DTLA place primary responsibility upon the marketplace, and thus will induce the creation of multiple competing protection technologies. By streamlining regulatory involvement, these criteria further will ensure that new technologies will become authorized and available for use in the marketplace with minimal procedural requirements or delay.

B. Proposals for Technical Criteria

Several commenters, including those companies filing comments as the "IT Coalition," recommended that the Commission should consider and adopt purely technical criteria by which new technologies could become admitted to Table A. 5C has never objected to, and could support, adoption of appropriate technical and licensing criteria as another means to obtain authorization on Table A, in addition to those criteria previously proposed by MPAA and 5C companies. *See* Comments of DTLA at 10.

For such criteria to be truly objective, they must impose minimal requirements upon the proponents other than the basic requirements of technological effectiveness, robustness, and enforceability. The criteria should otherwise be agnostic such that each proposal can compete in the marketplace based upon technological merit and

[3] The Joint Criteria Proposal outlined a proposed process for criterion (3), which called for dispute resolution if three Major Studios or three Major Broadcast Groups object to a notice submitted under criterion (3). *Id.* at 2-3.

acceptability of licensing terms and conditions. Further, as is the case for the DTLA proposal, any responsibilities that are imposed on regulators should be minimal. The fundamental goal of such criteria should be to provide incentives to and support marketplace competition. Thus, the criteria should:

1. Continue to set the benchmark of protection as "keeping honest people honest."

2. Provide sufficient flexibility for adoption of multiple technological methods. The regulations should not be tied to today's known methods of protection (*e.g.,* encryption), but instead should facilitate easy entry onto Table A of new technologies and methods.

3. Permit introduction of a variety of technologies, including those that facilitate interoperability or, conversely, closed systems. The criteria should facilitate authorization of any competing technology that provides adequate protection through technology and licensing. The marketplace can decide whether closed or interoperable systems are superior for particular networking applications.

4. Permit listed technologies to evolve so as to adapt to technological conditions. In this regard, the 5C companies understand the concern voiced in some comments that Table A technologies unilaterally could be changed in some fundamental way. DTLA notes, in that regard, that section 3.3.1 of its Adopter Agreement for the DTCP technology specifically states that DTLA will make no material mandatory changes to the Specification for DTCP.[4] Nevertheless, DTLA disagrees with those who suggest that technologies should be entirely "locked in" to a particular specification, or should not be permitted to develop without a public process to obtain prior approval from the Commission. DTLA submits that such regulations would stifle innovation in a new and rapidly-evolving field. Such requirements would make it more difficult for technologies already on the list to respond to hacks. Indeed, such proposals turn the concept of neutral criteria on its head, by making it more difficult for an approved technology to become better than for a new technology to establish its entitlement to Table A approval in the first instance.

5. Allow for adoption of rules-based systems that can more flexibly adapt to consumer rights of fair use, without dictating that any particular technology must accommodate such uses. DTLA noted in its Comments in this proceeding that the DTCP Content Participant Agreement provides for an "Encoding Rule" that protects consumer rights to freely copy broadcast programming, and that this rule was consistent with the rules adopted by industry standard practice, as well the Digital Millennium

[4] Available online at http://www.dtcp.com/data/DTCP_Adopters_Agreement010730.PDF

Copyright Act, 17 U.S.C. ə 1201(k). DTLA further recommended that the Commission adopt these Encoding Rules by regulation, as a baseline benefit for consumers. *See* DTLA Comments at 3, 11-12. Given the limitations of current technology, however, DTLA would not support minimum "fair use" requirements over and above this industry standard baseline. No known technology can fully replicate a fair use analysis in all situations. If a particular technology offers more flexible consumer benefits, so long as the technology meets the criteria for the Table A list, then the marketplace will determine whether such technology will be used.

6. Avoid discriminating against accepted technologies already in the marketplace. In that regard, DTLA notes that the MPAA Comments agreed that four technologies already in the marketplace – DTCP, HDCP, CPRM and D-VHS – in their view would qualify as authorized technologies, and others under development have potential to be equally effective. *See* MPAA Comments at 11, 26 and 28.

7. Not dictate particular licensing terms, other than those necessary to ensure private enforcement of the content protections offered by the technologies.

DTLA respectfully submits that such criteria would render unnecessary the type of over-regulation proposed by some commenters. So long as the criteria adopted by the Commission are clear, measurable and fair, the door remains open for multiple technologies to enter the marketplace. There would be no need for detailed regulations to dictate specific technological methods that must be adopted, or license terms and conditions unrelated to enforcement.

Also in this connection, DTLA would not oppose self-certification by technology companies of their compliance with these criteria, so long as the criteria adopted by the Commission provide sufficient clarity and guidance to those offering new technologies, and ensure compliance and robustness for the beneficiaries of protection.

II. Standards for "De-Listing" from Table A

The Joint Proposal from MPAA and 5C Companies for Table A Criteria noted that technologies should not be used for the "at least as effective" comparison criterion if they have been "significantly compromised." *Id.* at 1. Separately, these jointly-proposed criteria state that a technology should not be removed from Table A for purposes of continued authorization of such technologies for the output and recording of Marked Content unless it has been compromised at a substantially higher level. *Id.* at 2.[5] The Joint Proposal also stated that such standard would take into account, among other

[5] DTLA thus strenuously disagrees with any suggestions in the Comments of MPAA that technologies should be removed if they have been "significantly compromised," *id*. At 12, or just "compromised," *id.* at 22. Such statements are flatly inconsistent with the text of the criteria set forth in the Joint Proposal (at 2, subparagraph (iv)).

things, the impact on consumers and manufacturers of any removal of such technology from the list. At the time of such submission, however, the 5C and MPAA companies, had not agreed on, and left to future discussions, what specific standard should apply with respect to the removal of a technology from Table A.

Removal of technology from Table A should be undertaken, if at all, with the greatest care and consideration, and only under the most extreme of circumstances. For consumers, removal of a technology from Table A would create significant legacy problems for those who wished to connect new equipment with older equipment along a digital network, ultimately resulting in disenfranchisement of consumer equipment and consumer confusion. For manufacturers, de-listing of a Table A technology could impose substantial costs in redesigning equipment.

In particular, the Commission must recognize the likelihood that even the most sophisticated of technologies at some point will be hacked. Yet, the existence of a hack, even one that is proliferated widely, should not by itself cause removal of a technology from Table A. The example of the scrambling technology used on DVD, the "Content Scramble System" or "CSS," is instructive. Approximately two years after the release of DVDs protected by CSS, a program capable of gaining access to content protected using CSS became widely available via the Internet. Notwithstanding that this so-called "De-CSS" program has been available via the Internet for several years, DVD continues to grow geometrically in popularity and sales worldwide. Indeed, rapid consumer adoption of DVD players has made DVD the most successful of any home video format. The proponents and beneficiaries of CSS technology have been successful in asserting legal rights against circumvention. Moreover, despite the continued availability of circumvention programs, most consumers are wholly satisfied with the experience of owning, renting and viewing movies on DVD, and see no need to record or download DVD motion picture content. Hence, the CSS technology continues to fulfill its role of "keeping honest people honest," and CSS continues to be applied ubiquitously to motion picture content on DVD.

Similarly, in the case of the Broadcast Flag, the Commission must carefully consider all facts and circumstances relating to the continued utility of a Table A technology following any inevitable hack or circumvention. Given the potential for tremendous impact on both consumers and manufacturers of a possible removal of a Table A technology, and the absence of a consensus proposal with respect to such removal, the Commission should not adopt any regulation setting forth the standards and processes for removal without first seeking public comment.

In this connection, one approach that may merit consideration by the Commission for public comment would be that technologies could be removed from Table A only upon a showing by clear and convincing evidence that:

> (a) the technology (including its license and enforcement mechanisms) has been so substantially compromised as to be irreparably rendered unusable in relation to its ability to accord any protection to Unscreened Content and Marked

Content from unauthorized redistribution (including unauthorized Internet redistribution) in usable form; and

(b) the harm to content owners from the continued authorization of such technology outweighs the harm to consumers and manufacturers from the removal of such authorization.

III. Alternative Technical Solutions

A. Optional Watermarking

In their November 2001 presentation to the Copy Protection Technical Working Group of a proposed implementation of a Broadcast Flag, the DTLA companies described a technical solution, using the ATSC redistribution control descriptor, which they believed was technically sound and robust. Notwithstanding, DTLA companies also included a brief reference to the possible use of a watermark as an alternative broadcast flag, and to the detection of such watermark as a voluntary option for manufacturer. However, DTLA opposed then, and opposes now, mandating detection of a watermark as a broadcast flag.[6]

A watermark broadcast flag could be useful in situations in which a manufacturer's device already uses watermark detection for other purposes. However, detection of a watermark is by its nature more computationally intensive and, therefore, potentially more expensive, than the standard ATSC implementation of the Broadcast Flag. Mandatory detection of a watermark for purposes of implementing a broadcast flag also could require the incorporation of watermark detectors into many devices, including television receivers, that otherwise might need no watermark detectors.

Moreover, the proposed use of a watermark for controlling redistribution of digital broadcast television programming would be no more robust for such purposes than the system as proposed in the Joint Requirements. Thus, the DTLA companies continue to believe that the Broadcast Flag technical proposal, as described in the Requirements jointly filed by the MPAA and 5C companies, constitutes the best method for implementing the Broadcast Flag across a wide range of devices and platforms.

We further note that CPTWG and DVD CCA continue to engage in multi-industry evaluations of the uses of watermarks in audiovisual works for various purposes relating to the protection of content. We therefore believe that consideration of the uses of watermarks in all contexts, including with respect to broadcast content, is best left to industry.

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[6] We note in this regard that three of the five companies that are members of DTLA have participated in the process of submitting bids for adoption of their respective watermarking technologies by the DVD Copy Control Association (DVD CCA), in connection with the protection of motion pictures released on DVD. Notwithstanding, DTLA respectfully suggests that it would be inappropriate to mandate adoption of a watermark technology for purposes of implementing a broadcast flag.

IV. Conclusion

The 5C companies thank the Commission for this opportunity to submit Reply Comments in this proceeding, and look forward to continuing participation in the Commission's consideration of technologies and policies relating to the protection of digital broadcast content. Should the Commission have any questions with respect to the DTCP technology, or concerning the Comments or Reply Comments of the DTLA, please feel free to contact the undersigned.

Respectfully submitted,

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